Helicopter Evacuation Check List

When requesting helicopter assistance:

1. Give accurate position, time, speed, course, weather conditions (ceiling, visibility, wind direction/speed, and sea state).

2. If not already provided, give complete medical information, including whether or not the patient can walk.

3. Be prepared to change your course toward the helicopter if you are told to do so by the SAR mission coordinator.

Preparations before the helicopter arrives:

1. Provide continuous radio guard on 2182 or 4125 kHz, 156.8 MHz (CH 16 VHF-FM) or a voice frequency specified by the SAR mission coordinator.

2. Select and clear the hoist area, preferably aft in the stern. Secure loose gear, awnings, rigging, and booms.

3. If the hoist is at night, illuminate the hoist area as well as possible. Do not shine any lights toward the helicopter that may blind the pilot. Put a light on any obstructions in the vicinity so the pilot will be aware of their locations.

4. Point searchlights vertically to help the helicopter locate the ship and extinguish them when the helicopter is on scene.

5. Advise SAR mission coordinator of location of hoist area before the helicopter arrives so the pilot can make his approach aft, amidship, or forward, as necessary.

5. Advise SAR mission coordinator how many people you have on board the vessel.

6. There will be a high noise level under the helicopter, making voice communications almost impossible. Arrange a set of hand signals among the vessel crew who will assist.

Hoist operations:

1. Be sure patient is tagged to indicate what medications, if any, were administered and when.

2. Have patient's medical record and necessary papers in an envelope or package ready to transfer with them.

3. Move the patient to a position as close to the hoist area as their condition permits. Time is important.

4. The helicopter may elect to lower their rescue swimmer to your vessel to evaluate the patient and assist in the hoist evolution. Please assist the rescue swimmer and follow his instructions.

5. It will be necessary to hoist the patient in the Coast Guard rescue device, which will be lowered by the helicopter. Be prepared to do this as quickly as possible. Be sure the patient is strapped in, face up, and wearing a life jacket if their condition permits.

6. Change course so the ship rides as easily as possible with the wind on the bow, preferably the port bow. Reduce speed if necessary to ease ship's movement, but maintain steerageway. Once the hoist begins, maintain course and speed.

7. If you do not have radio contact with the helicopter — when you are in all respects ready for the hoist — signal the helicopter in with a "come on" by hand, or at night by flashlight.

8. Allow the rescue device to touch the deck before handling it to avoid static discharge.

9. If the helicopter drops a trail line, guide the rescue device to the deck with the trail line. **Do not tie the trail line or hoist cable to the vessel.**

10. If necessary to take rescue device away from hoist point, unhook the hoist cable and keep free for helicopter to haul in. Do not attempt to move rescue device without unhooking it. **Do not secure the cable to the vessel.**

11. Place patient in rescue device, sitting with hands clear of sides or strapped in face up. Signal hoist operator when ready for hoist. Patient signals by nodding head if he is able. Deck personnel give "thumbs up" to hoist operator. Steady the rescue device to prevent turning or swinging.

12. If a trail line is attached to the rescue device use it to steady the rescue device during the hoist. Keep feet clear of the line.

Save this check list

FISHING VESSEL SAFETY
17th COAST GUARD DISTRICT

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Kenai	(907) 283-3292
Ketchikan	(907) 225-1048
Kodiak	(907) 486-5918
Sitka	(907) 966-5454
Valdez	(907) 835-7215
Seattle, WA	(206) 217-6180
Portland, OR	(503) 240-9337

U.S. COAST GUARD

When a vessel at sea requires a medical evacuation, lives depend on knowing the right procedure and on advance planning. An oversight or poor planning can endanger the helicopter, its crew, the patient, and the crew of the vessel. Knowing the right way makes everyone safer.

This Pamphlet describes evacuation procedures used by U.S. Coast Guard helicopters. In general, these procedures apply to helicopter operations conducted by other rescue agencies as well.

Guide to Helicopter Assistance and Evacuation at Sea

HELICOPTER ASSISTANCE PROCEDURES

Contacting the Coast Guard

When you contact the Coast Guard about a medical problem onboard your vessel, be prepared to describe the patient's condition. The Coast Guard will need to know:

- A description of the illness or injury.
- Is the patient's life in danger?
- Is the patient bleeding?
- Is the patient conscious?
- Is the patient vomiting?
- Does the patient have a history of similar illness?
- What medications are on board?
- What medication has the patient been given?

You will be asked for the patient's vital signs: temperature, pulse, blood pressure, and blood type. Tell the Coast Guard if the patient cannot walk, to ensure the helicopter brings the right rescue device*. The more information you have when you contact the Coast Guard, the sooner a decision can be made on necessary treatment.

The Coast Guard will also need to know your position, course, speed, on-scene weather, and number of people on board. Distance will be a factor that determines whether a medevac is possible. The maximum ranges of the helicopters now used by the Coast Guard, the HH-60J and the HH-65A, are approximately 300 and 100 nautical miles, respectively. This is in ideal weather, ideal weight aboard, and includes going out, hovering for 20 minutes and returning. Bad weather or extra weight may shorten these distances.

Obviously, if a vessel 500 miles at sea needs a medevac, it will need to divert so a helicopter can reach it. The Search and Rescue (SAR) mission coordinator will tell the ship if a diversion is necessary and a rendezvous point will be established. If the vessel is already within helicopter range, altering course toward the helicopter may speed the medevac.

Good ship-to-helicopter communications are crucial. A C-130 fixed-wing aircraft often escorts a helicopter, both to guide the helicopter to the scene and to help with communications. It is not unusual for a C-130 to circle the vessel and communicate with it before the helicopter arrives. Voice communications between ship and aircraft are normally conducted on international distress and/or calling frequencies such as 2182 kHz or 4125 kHz, 156.8 MHz (CH 16 VHF-FM). Other frequencies common to both helicopter and vessel may be used. Once good communications have been established, frequency changes should be avoided. Helicopters can transmit and receive voice — Single Side Band — on high frequencies between 2,000 kHz and 30,000 kHz, if necessary. The helicopters have homing capabilities on many Marine Band frequencies. The aircraft may request frequent transmissions from the ship for homing purposes, so the vessel should maintain a continuous watch on the assigned frequency.

If radio communications cannot be established, the helicopter will try to set up communications through other means when it arrives on scene. These may include lowering a portable radio, dropping a message block, using hand signals or putting a rescue swimmer on board. As a last resort, the pilot may move right into

position and begin the hoist.

Before the helicopter arrives

The skipper can prepare for the hoist prior to the helicopter's arrival. Most vessels have a clear area from which the hoist can be made safely. The more space available, the easier and less hazardous the hoist. Although Coast Guard helicopters can hoist from a substantial height, the operation becomes more difficult and dangerous with increased altitude.

Before the helicopter arrives, remove and secure any awning or other items that may be blown about by the rotor downwash. The flagstaff should be taken down, and, if possible, remove stern antenna wires or cables. Do not lower the primary communications antenna unless asked to do so by the aircraft crew. Removing obstructions on the vessel will mean a lower and easier hoist. Normally the hoist will be made from the stern of the vessel.

If weather and the patient's condition permit, the patient should be brought on deck and placed under cover near, but not in, the hoist area shortly before the helicopter arrives. Wrap any blankets securely around them so that the rotor downwash doesn't blow them away. The patient must wear a PFD unless their condition absolutely prevents it.

The patient may bring a small soft-sided bag of personal papers and a few belongings. Include identification such as driver's license, Social Security card, passport, immunization record, and a record of medications administered and prescribed medications.

All personnel on deck must wear PFDs.

Special lighting precautions will be necessary if the hoist takes place at night. Because of visibility and depth-perception problems, the pilot will probably make an instrument approach to the vessel. Lighting the ship and the hoist area is necessary, but do not shine any lights into the cockpit of the aircraft and do not have any deck lights pointing up toward the helicopter. Such lights can disorient or blind the pilot. If a searchlight is used to help the aircraft locate the vessel, shine it vertically and turn it off once the helicopter has reached the scene. Boom lights used to light the deck should be directed downward.

During the hoist

As the helicopter approaches, change course until the wind is blowing in at 30 degrees off your port bow, or as directed by the helicopter. Do not stop. Maintain normal speed since the helicopter can make the hoist with better control at a speed of 10 to 15 knots if the vessel is underway. Ensure the requested course will not endanger your vessel.

Final instructions for the hoist will be given by the pilot after seeing the ship and its obstructions. The pilot may change the location of the hoist after he sees the vessel.

Always allow the rescue device to touch the deck before handling it. During its flight, the aircraft builds up a static electric charge; anyone who reaches up to take hold of the rescue device will get a shock. If a high hoist is involved or the hoist is in a confined space, the helicopter may lower a trail line first. Deck personnel can guide the rescue device to the deck with this line as long as they do not touch the rescue device itself. **Do not tie the trail line or hoist cable to any part of the vessel.** Until the hoist is complete, a crewmember must tend this line at all times to keep the line from fouling.

Instinctively the patient will want to grasp the side of the rescue device. Instruct them not to, because of the possibility of injuring their fingers if the rescue device hits the side of the helicopter as it is being brought on board. When the patient is ready for the hoist, deck personnel signal the hoist operator in the helicopter by indicating "thumbs up" and the hoist begins. Steady the rescue device to minimize swinging, using the trail line if so equipped. Do not stand directly under the rescue device.

If the patient is so ill that the rescue device must be brought to them, it must first be unhooked from the hoist cable. Do not try to take the rescue device away from the hoist point without unhooking the cable and letting it go free. **Do not hook the hoist cable to any point on the vessel.** Usually the pilot will retrieve the cable, and reposition away from the ship until he sees the patient is in the rescue device and ready to be hoisted.

Once the rescue device is inside the helicopter, the crew may cast off the trail line. You may recover it or toss it overboard, but be careful not to foul your screw.

Every helicopter evacuation at sea is different, and each presents its own problems. Communications between pilot and ship are critical. Operations at night, or under poor weather conditions require the utmost caution. In each case, knowing what to expect and how to prepare can save time, effort and possibly a life.

*__Rescue Device__ -- a basket which requires no straps **or** a litter/stretcher which requires the patient to be strapped in